NATIONAL HEADQUARTERS
CIVIL AIR PATROL
UNITED STATES AIR FORCE AUXILIARY
MAXWELL AIR FORCE BASE, ALABAMA 36112-6332

23 AUG 2005

MEMORANDUM FOR NATIONAL BOARD AND CAP-USAF PERSONNEL

FROM: HQ CAP/DO and HQ CAP-USAF/XO

SUBJECT: Standardized Checklists for CAP Aircraft

1. The NEC tasked NHQ to design and distribute tail number specific standardized checklists for all CAP corporate aircraft. Most of the checklists have been developed and CAP-USAF has approved the design. The NEC directed that each checklist must be coordinated with the respective State Director and approved by the Wing Maintenance Officer (or other Wing Commander designee.)

2. Maintenance Officer approval is necessary to ensure the checklist reflects the STCs and all of the components installed in each individual aircraft. If the Wing Maintenance Officer notes discrepancies in a specific draft aircraft checklist, he/she should e-mail the corrections to jsharp@cap.gov so changes can be made to the master checklist. Each specific make, model, and tail number checklist has two double-sided pages…one for normal procedures and one for emergency procedures. These checklists should be printed back-to-back on an 8½ x 11 sheet of paper and then laminated. Several designs were tested and it was found that most pilots liked the flat 8½ x 11 checklist best. However, regions/wings are allowed to fold the checklist if they prefer. If the wing is unable to laminate the checklists locally, HQ CAP/DOT will laminate any checklists that have been approved by the Wing Maintenance Officer. A copy of all final checklists (signed by the Wing Maintenance Officer) should be mailed unfolded to:

HQ CAP/DOT (Attn: John Sharp)
105 South Hansell Street
Maxwell AFB, AL 36112-6332

Note: Wings should include a return address if they want a laminated checklist mailed back to the wing and they should indicate whether they want the checklist folded or flat.

3. Once HQ CAP/DOT receives the final checklist signed by the maintenance officer, it will be scanned and posted on the website. The checklist website is: https://ntc.cap.af.mil/ops/dot/ChecklistMaps.cfm. The majority of the draft CAP aircraft checklists have been uploaded. However, there are a few checklists that are still being developed. The NEC directed that all standardized checklists be put into use within 90 days from the date the checklists are approved/posted on the web. Use of these standardized checklists will be mandatory for all CAP and CAP-USAF flight operations in corporate aircraft. Please direct any questions or comments to John Sharp at jsharp@cap.gov or 334.953.2452.

RANDALL R. MATHIS, Lt Col, USAF
Director of Operations, HQ CAP-USAF

JOHN A. SALVADOR
Director of Operations, HQ CAP

Attachments:
1. Sample C-182R Normal Procedures Checklist
2. Sample C-182R Emergency Procedures Checklist

cc:
HQ CAP/EX/XP/LG/GC/IG/SE/EXI
CAP-USAF/CC/CV/XO/IG/JA
Operations Committee
Wing Maintenance Officers
CAP-USAF LR/CC
CAP-USAF State Directors

Civil Air Patrol

1982 Cessna-182 – N1432E

Preflight Cabin

1. Pilot's Operating Handbook Available
2. Parking Brake ..... Set
3. Hobbs & Tach ..... Check
4. Fire Extinguisher ..... Charged
5. Squawk Sheet ..... Check
6. Documents ..... AROW in airplane
7. Control/Avionics Lock ..... Remove
8. Avionics Power Switch ..... Off
9. Ignition Switch ..... Off
10. Master Switch ..... On

Warning

When turning on the master switch, using an external power source, or pulling the propeller through by hand, treat the propeller as if the ignition switch were on. Do not stand, nor allow anyone else to stand, within the arc of the propeller, since a loose or broken wire, or a component malfunction, could cause the propeller to rotate.

11. Flaps ..... Full Down
12. Fuel Quantity Indicators ..... Check Quantity
13. Low-Vacuum Warning Light Check On
14. Avionics Power Switch ..... On
15. Avionics Cooling Fan Check Audibly
16. Avionics Power Switch ..... Off
17. Pitot Heat ..... Check
18. Lights ..... Check
19. Master Switch ..... Off
20. Alternate Static ..... Off
21. Fuel Selector ..... Both

Preflight Empennage

1. Baggage Door ... Check for security and lock
2. Rudder Gust Lock ..... Remove
3. Tail Tie-Down ..... Disconnect
4. Control Surfaces ..... Check

Preflight Right Wing trailing edge

1. Right Flap ..... Check
2. Right Aileron ..... Check
3. Right Wingtip & Light ..... Check

Preflight Right Wing

1. Wing Tie Down ..... Disconnect
2. Right Fuel Vent ..... Check Clear
3. Rt. Main Wheel Tire & Brake .. Check
4. Right Fuel Sump(s) ..... Drain
5. Right Fuel Quantity ... Visually Check
6. Fuel Filler Cap ..... Secure, vent unobstructed

Nose

1. Static Sources ... Check (Both sides)
2. Prop, Spinner, Engine Inlet .... Check
3. Landing Lights ..... Check
4. Carburetor Air Filter ..... Check
5. Nose Wheel, Strut & Tire ..... Check
6. Nose Tie-Down ..... Disconnect
7. Engine Oil Filler Cap. Check Secure
8. Engine Oil Dipstick ..... 9-12 Quarts
9. Fuel Strainer Drain Knob .. Pullout to Drain
10. Windscreen ..... Check/Clean

Preflight Left Wing

1. Left Main Wheel Tire & Brake. Check
2. Left Fuel Sump(s) ..... Drain
3. Left Fuel Quantity ..... Visually Check
4. Fuel Filler Cap ..... Secure

Preflight Left Wing Leading Edge

1. Pitot Tube Cover ..... Remove
2. Left Fuel Vent ..... Check Clear
3. Stall Warning ..... Check
4. Wing Tie-Down ..... Disconnect
5. Left Wingtip & Light ..... Check

Preflight Left Wing Trailing Edge

1. Left Aileron ..... Check
2. Left Flap ..... Check

PASSENGER BRIEF

1. **Seat Belts / Shoulder Harness**
2. **Personal Electronic Devices off**
3. **Air Vents / Comfort**
4. **Fire Extinguisher Location / Operation**
5. **Emergency Procedures & Exits**

MISSION BRIEF

1. **Mission Objective**
2. **Destination, WX, Route, Alt, ETE**
3. **NOTAMS**
4. **Crew Coordination & CRM**
5. **Sterile Cockpit Procedures**
6. **Cockpit Layout**
7. **Intercom & Radio Usage**
8. **Seats, Seatbelts, Doors**
9. **Emergency Action & Equipment**

Before Starting Engine

1. Preflight Inspection ..... Complete
2. Passenger Brief ..... Complete
3. Seats / Belts / Shoulder Harness ..... Adjust and Lock
4. Brakes ..... Test & Set
5. Avionics Power Switch ..... Off

Caution

The avionics power switch must be OFF during engine start to prevent possible damage to avionics.

6. Electrical Equipment ..... Off
7. Circuit Breakers ..... Check In
8. Autopilot (If installed) ..... Off
9. Cowl Flaps ..... Open
10. Fuel Selector Valve ..... Both

Starting Engine

1. Prime ..... As Required (Up to 3)
2. Carburetor Heat ..... Cold
3. Throttle ..... Open ½ Inch
4. Propeller ..... High RPM
5. Mixture ..... Rich
6. Propeller Area ..... Clear
7. Master Switch ..... On
8. Ignition Switch ..... Start

Note

If engine has been over primed, start with throttle ¼ to ½ open. Reduce throttle to idle when engine fires.

9. Throttle ..... 800 to 1000 RPM
10. Oil Pressure ..... Check
11. Starter ..... Check Disengaged
12. Avionics Power Switch ..... On
13. Beacon & Nav Lights ..... On
14. Taxi Lights ..... As Required
15. Flaps ..... Up
16. Transponder ..... TEST/STBY
17. Radios ..... On
18. ATIS / AWOS ..... Copy
19. Altimeter .. Set (Verify Within 75' of Fld Elev.)
20. Clearance Delivery/Ground Control ..... Contact

Taxi

1. Brakes ..... Test
2. Heat / Vents / Defrost ... As Required
3. Attitude Indicator ..... Verify Proper Operation
4. Turn Coordinator ..... Verify Proper Operation
5. H.I. & Compass ..... Verify Proper Operation
6. Fuel Selector Valve .. Check & Set to Both

Before Takeoff - Run-Up

1. Parking Brake ..... Set
2. Seats / Belts / Shoulder Harness ..... Check Secure
3. Cabin Doors ..... Closed and Locked
4. Flight Controls ..... Free & Correct
5. Flight Instruments & H.I. Check & Set

Caution

The directional indicator should be rechecked during engine run-up to avoid compass deviation errors, which may occur below 1200 RPM.

6. Fuel Quantity ..... Check
7. Mixture ..... Rich
8. Fuel Selector Valve ... Recheck Both
9. Elevator & Rudder Trim ..... Set for Takeoff
10. Cowl Flaps ..... Recheck Open
11. Throttle ..... 1700 RPM
12. Magnetos ..... Max Drop 150 RPM Max Differential 50 RPM
13. Carb Heat ..... Check for RPM Drop
14. Propeller ..... Cycle
15. Suction Gauge ..... Check
16. Engine Inst & Ammeter ..... Check
17. Throttle ..... Idle Check, then 800 to 1000 RPM
18. Throttle Friction Lock ..... Adjust

19. Strobe Lights/Pulse Lights (If installed).....As Desired
20. Radios / Transponder .....Set
21. Autopilot (If Installed)..... Off
22. Flaps set for Takeoff..... 0°-20°
23. Primer ..... In & Locked
24. Carb Heat .....Cold
25. Electric Trim (If Installed)..... Test
26. Takeoff Briefing .....Complete
27. Doors & Windows ..... Latched
28. Lights .....Set
29. Transponder ..... Set to ALT
30. Time.....Record
31. Parking Brake .....Release

Takeoff

1. Flaps..... 0°-20°
2. Carb Heat.....Cold
3. Power .. Full Throttle and 2400 RPM
4. Mixture..... Full Rich or Max Power
5. Engine Instruments ..... In Green
6. Rotate..... 50 KIAS
7. Normal Climb Speed ..... 80 KIAS
   - Short Field T.O..... 20° Flaps / 59 KIAS Until Clear
   - Soft Field T.O. 20° Flaps / Ground Effect ASAP
6. Flaps..... Retract (above 70 KIAS)

Enroute Climb

1. Airspeed ..... 85-95 KIAS Normal
2. Throttle 23 Inches or Full (whichever is less)
3. Propeller ..... 2400 RPM
4. Fuel Selector .....Both
5. Mixture..... Full Rich or Max Power
6. Cowl Flaps..... Recheck Open
7. Engine Instruments .....Check

Cruise

1. Power .... 15-23 Inches & 2100-2400 RPM (no more than 75% power).
2. Elevator & Rudder Trim..... Adjust
3. Mixture..... Lean
4. Cowl Flaps.....As required
5. Engine Instruments / Fuel .....Check
6. Heading Indicator (H.I.).To Compass
7. Lights..... As Required
8. Flight Plan .....Activate as Required

Descent

1. Heading Indicator. ..... To Compass
2. Altimeter ..... Set
3. Fuel Selector ..... Both
4. Lights .....As Required
5. Engine Instruments .....Check
6. Mixture.....Enrich
7. Power / Carb Heat .....As Required
8. Cowl Flaps.....Closed
9. Wing Flaps ..... As Desired

Before Landing

1. Seat, Seat Belts, Shoulder Harness ..... Adjust and Lock
2. Fuel Selector ..... Both
3. Mixture.....Rich
4. Propeller ..... High RPM
5. Carb Heat .....On
6. Autopilot (If installed).....Off
7. Airspeed ...70-80 KIAS (Flaps Up)
8. Airspeed 60-70 KIAS (Flaps Down)
9. Trim .....Adjust
10. Touchdown .....Main Wheel First
11. Landing Roll... Lower Nose Wheel Gently
12. Braking ..... Minimum required

Short Field Landing

1. Airspeed ...70-80 KIAS (Flaps Up)
2. Flaps..... Full (below 95 KIAS)
3. Airspeed ..... Maintain 61 KIAS
4. Trim .....Adjust
5. Power ..Reduce to idle as obstacle is cleared
6. Touchdown .....Main Wheels First
7. Brakes ..... Apply Heavily
8. Flaps..... Retract for Max brake effectiveness.

Balked Landing

1. Power .. Full Throttle & 2400 RPM
2. Carb Heat ..... Cold
3. Flaps.....Retract to 20°
4. Climb Speed .....55 KIAS
5. Flaps..... Retract Slowly (above 70 KIAS)
6. Cowl Flaps..... Open

After Landing (Clear of Runway)

1. Flaps .....Up
2. Carb Heat ..... Cold
3. Cowl Flaps .....Open
4. Lights .....As Required
5. Transponder .....STBY & 1200
6. Mixture .....Lean
7. Pitot Heat .....Off

Securing Aircraft

1. Parking Brake ..... Set
2. Throttle.....Idle
3. Avionics Power & Switches .....Off
4. Magnetos ..... Check for Ground
5. Mixture ..... Idle Cut Off
6. Ignition & Master Switch .....Off
7. Control/Avionics Lock ..... Install
8. Parking Brake ..... Off
9. Cowl Flaps ..... Closed
10. Fuel Selector .....Left or Right
11. Hobbs & Tach .....Record
12. Aircraft..... Secured & Locked
13. Flight Plan ..... Closed

CAP Radio Frequencies...

Ch	Description	Rx. Freq	Tx. Freq
1.	Primary Simplex	148.150	148.150
2.	Secondary Simplex		148.125
			148.125
3.	Ground Tactical		148.1375
			148.1375
4.	Air to Ground		149.5375
			149.5375
5.	National WX 1		162.400
6.	National WX 2		162.475
7.	National WX 3		162.550

V Speeds and Specs

- X-Wind (Max Demo'd).....15 Knots
- Vr Rotation Speed .....50 KIAS
- Vx Best Angle Climb.....59 KIAS
- Vy Best Rate Climb.....81 KIAS
- Vso Stall w/ Flaps .....40 KIAS
- Vs1 Stall w/o Flaps .....50 KIAS
- Best Glide (3100 Lbs).....76 KIAS
- Best Glide (2600 Lbs).....70 KIAS
- Best Glide (2000 Lbs).....61 KIAS
- Va Max Abrupt Ctrl (3100 Lbs).111 KIAS
- Va Max Abrupt Ctrl (2600 Lbs) .102 KIAS
- VA Max Abrupt Ctrl (2000 Lbs)....88 KIAS
- Vno Max Structural Cruise143 KIAS
- Vne Never Exceed..... 179 KIAS
- Vfe 10° Flaps ..... 140 KIAS
- Vfe 10°-Full Flaps ..... 95 KIAS

General...

- EMERGENCY..... 121.50
- Unicom..... 122.70-122.80-122.95 123.00-123.05
- Multicom..... 122.90 (CTAF)
- Flight Service ..... 122.20 (Most Common) 122.10-122.60-123.60
- Flight Watch..... 122.00
- Air to Air 122.75-122.85-123.45

Transponder Codes/Light Signals...

- 1200 ..... VFR
- 7500 .....HIJACK
- 7600 ..... LOST COMMS
- 7700 ..... EMERGENCY
- Gross Weight Capacity ..... 3100 (Takeoff) ..... 2950 (Landing)
- Engine..... Continental O-470-U
- Max Power .....230 BHP
- Fuel Type .....100LL (Blue)
- Fuel Capacity (Standard) ....88 Gal Usable
- Oil Type.....Aeroshell 15W-50
- Oil Capacity....12 Qts (Minimum 9)
- Electrical .....24-28 Volt / 60 Amp
- Tire PressureNose-49 PSI / Main-42 PSI

This checklist is a guide to coordinate Pilot Operating Handbook and STC data applicable to this particular aircraft only. The applicable Pilot Operating Handbook and STC installations remain the official documentation for this aircraft.
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I certify this checklist has been reviewed for accuracy.

Wing Director of Maintenance
Dated: AUG 11 2005

EMERGENCY PROCEDURES

1982 N1432E Cessna 182R

Bold-faced type are immediate action items which should be committed to memory.

Engine Failure During Takeoff Roll

1. **Throttle .....Idle**
2. **Brakes..... Apply**
3. Wing Flaps .....Retract
4. Mixture..... Idle Cut Off
5. Ignition Switch..... Off
6. Master Switch ..... Off

Engine Failure Immediately After Takeoff

1. **Airspeed.....**
   75 KIAS (Flaps Up)
   70 KIAS (Flaps Down)
2. Mixture ..... Idle Cut Off
3. Fuel Selector ..... Off
4. Ignition ..... Off
5. Wing Flaps .....As Required (Full Recommended)
6. Master Switch..... Off

Engine Failure During Flight (Restart)

1. **Airspeed.....75 KIAS**
2. **Carb Heat ..... On**
3. **Fuel Selector..... Both**
4. Mixture .....Rich
5. Ignition .....Both (or START if propeller is stopped)
6. Primer ..... In & Locked

Forced Landing w/o Engine Power

1. Airspeed ..... 75 KIAS (Flaps Up)
   70 KIAS (Flaps Down)
2. Mixture .....Idle Cut Off
3. Fuel Selector.....Off
4. Ignition .....Off
5. Wing Flaps..... As Required (Full Recommended)
6. Master Switch .....Off
7. Doors .....Unlatch prior to Touchdown
8. Touchdown ..... Slightly Tail Low
9. Brakes ..... Apply Heavily

Precautionary Landing With Engine Power

1. Airspeed .....75 KIAS
2. Wing Flaps..... 20°
3. Select Field .....Perform Fly Over Inspection
4. Electrical Switches .....Off
5. Flaps..... Full on Final Approach
6. Airspeed .....70 KIAS
7. Avionics & Master Switches . Off
8. Doors .....Unlatched Prior To Touchdown
9. Touchdown ..... Slightly Tail Low
10. Ignition Switch .....Off
11. Brakes ..... Apply Heavily

Engine Fire During Start

1. **Continue Cranking Engine**
2. If Engine Starts: .....Power 1700 RPM for a few minutes
3. Engine ....Shutdown and Inspect

If Engine Fails to Start:

4. **Throttle ..... Full Open**
5. **Mixture..... Idle Cut Off**
6. **Cranking ..... Continue**
7. **Fire Extinguisher ..... Obtain**
8. **Master/Ignition/Fuel ..... Off**
9. **Fire .....Extinguish**
10. Fire Damage ..... Inspect

Engine Fire in Flight

1. **Mixture.....Idle Cut Off**
2. **Fuel Selector .....Off**
3. Master Switch .....Off
4. Cabin Heat & Air .....Off (Except Overhead Vents)
5. Airspeed .....100 KIAS (If fire is not extinguished, increase glide speed to find an airspeed which will provide an incombustible mixture.)
6. Forced Landing w/o Engine Power .....Execute

Electrical Fire in Flight

1. **Master Switch ..... Off (Leave Ignition On)**
2. **Avionics Power Switch.....Off**
3. **All Other Switches (Except Ignition).....Off**
4. **Vents/Cabin Air/Heat . Closed**
5. **Fire Extinguisher ..... Activate**

Warning
After discharging an extinguisher within a closed cabin, ventilate the cabin.

If fire appears out and electrical power is necessary for continuance of flight:

6. Master Switch .....On
7. Circuit Breakers ..... Check for Faulty circuit (Do Not Reset)
8. Radio Switches .....Off
9. Avionics Power Switch .....On
10. Radio/Electrical Switches ..On one at a time w/ delay after each until short is localized.
11. Vents/Cabin Air/Heat ... Open when it is ascertained that fire is completely extinguished.

Cabin Fire

1. **Master Switch..... Off (Leave Ignition On)**
2. **Vents/Cabin Air/Heat..Closed**
3. **Fire Extinguisher.....Activate**

Warning
After discharging an extinguisher within a closed cabin, ventilate the cabin.

4. Land . As soon as possible and inspect damage

Wing Fire

1. **Navigation Lights ..... Off**
2. **Strobe Lights..... Off**
3. **Pitot Heat ..... Off**
4. **Landing/Taxi Lights ..... Off**

Note

Sideslip to keep flames away from the fuel tank and cabin, and land as soon as possible using flaps only as required for final approach and touchdown.

CAP
U.S. AIR FORCE AUXILIARY

icing

1. **Pitot Heat..... On**
2. **Turn back or change altitude** to obtain an outside air temp that is less conducive to icing.
3. **Pull cabin heat control to full out and rotate defroster control clockwise** to obtain maximum defroster airflow.
4. Increase Engine Speed to minimize ice build-up on propeller blades
5. Watch for signs of carburetor air filter ice and apply carburetor heat as required. An unexplained loss of manifold pressure could be caused by carburetor ice or air intake filter ice. Lean the mixture if carburetor heat is used continuously.
6. Plan a landing at the nearest airport. With an extremely rapid ice build-up, select a suitable "off airport" landing site.
7. With ice accumulation of ¼ inch or more on the wing leading edges, be prepared for significantly higher stall speed.
8. Leave wing flaps retracted. With a severe ice build-up on the horizontal tail, the change in wing wake airflow direction caused by wing flap extension could result in a loss of elevator effectiveness.
9. Open left window and if practical scrape ice from a portion of the windshield for visibility in landing approach.
10. Perform landing approach using a forward slip, if necessary, for, improved visibility.
11. Approach at 80 to 90 KIAS depending upon the amount of accumulation.
12. Perform a landing in level attitude.

Ditching

1. Radio .....Transmit Mayday on 121.5 giving location and intentions and squawk 7700.
2. Heavy Objects ..... Secure or Jettison.
3. Flaps..... 20° to 40°
4. Power ..... Est. a 300 FPM descent at 65 KIAS.
5. Approach
   High winds, heavy seas .....Into the Wind.
   Light winds, heavy swells.....
   Parallel to swells.

   Note

   If no power is available, approach at 75 KIAS with flaps up or at 70 KIAS with 10° flaps
6. Cabin Doors.....Unlatch
7. Touchdown .....Level attitude at established descent rate.
8. Face.....Cushion at touchdown with folded coat.
9. Airplane .....Evacuate through Cabin doors. If necessary, open window and flood cabin to equalize pressure so doors can be opened.
10. Life vests and raft.....Inflate

For all other Emergency Abnormal Procedures. See the POH Section 3.

Airspeeds for Emergency Operations

Engine Failure After Takeoff:
Wing Flaps Up -- 75 KIAS
Wing Flaps Down -- 70 KIAS

Maneuvering Speed:
3100 Lbs -- 111 KIAS
2600 Lbs – 102 KIAS
2000 Lbs – 88 KIAS

Maximum Glide:
3100 Lbs – 76 KIAS
2600 Lbs – 70 KIAS
2000 Lbs – 61 KIAS

Precautionary Landing With Engine Power – 70 KIAS

Landing Without Engine Power:
Wing Flaps Up – 75 KIAS
Wing Flaps Down – 70 KIAS

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